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EXAMINER

GANTT, ALAN T

ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/071,244

**Applicant(s)**

PALMERI ET AL.

**Examiner**

Alan T. Gantt

**Art Unit**

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 11-13 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 14-16 and 20-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>82504</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed 8/23/04 have been fully considered but they are not persuasive. Applicant has utilized material previously indicated as allowable by placing this information into the independent claim. However, in so doing this procedure, applicant has deleted previous information from the independent claim. The resultant claim is different from the claim that would have resulted from the previous independent claim with the material indicated as allowable. Now, the resultant claim is far more heavily weighted with the material from prior claim 4 and, as such, provides a different meaning than what the previously allowability had indicated. Thus, this Office Action is a Final Action. Thus, the examiner is making additional requirements for claim 1 in the form of a 112 rejection to more fully flesh out the meaning of the claim language in its entirety. Thus, the phrase "wherein the slow AGC is updated using peak amplitude information from both indoor and outdoor measurement points associated with the node receiver" must be more fully developed with regards to definitions for both an indoor measurement point and an outdoor measurement point associated with the node receiver in order to distinguished from the prior art, preferably with clauses that show the interrelationship between the individual components. Upon sufficiently describing this procedure, this claim may then be in condition for allowance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim must be more fully developed with regards to definitions for both an indoor measurement point and an outdoor measurement point associated with the node receiver so that the claim is well defined and able to stand alone in showing patentability.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8, 11-13, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang.

Regarding claim 6, Zhang discloses a control method for a signal level in point-to-point-multipoint microwave time division multiple access (TDMA) radio-communication systems (col. 3, lines 21-33), of the type where a radio control loop is activated from a common radio node [the base transceiver station] to regulate the transmitted signal power level of a plurality of remote access terminals (col. 5, lines 1-12), Zhang meets the limitations:

said node including a local control loop, wherein said local control loop in said node is activated through a short term averaging dynamic buffer to adjust the signal power level input in a demodulator of the node during a fast transient of the signal level and is able to discriminate a single terminal signal, (col. 8, line 34 to col. 9, line 15) and a long term averaging unit balancing the changes in gain of the reception chain of the node. (col. 9, line 15-38)

Zhang is silent regarding a fast AGC and a slow AGC.

However, the examiner takes Official Notice that it is well known that automatic gain control is utilized in control loops used to implement transmission power control and that at the time of the applicant's invention it would have been obvious to modify Zhang's discussion of conventional AGC to include discussions of fast and slow AGC with regard his invention to more accurately describe the mechanisms of the invention.

Regarding claim 7, the examiner takes Official Notice that it is well known for a slow AGC to have a dynamic range that is smaller than the fast AGC and that slow AGC may have a response time  $>50$  ms and at the time of the applicant's invention that it would have been obvious to modify Zhang to include a slow ACG response time greater than 50 ms since for this type of automatic gain control there is a long settling time period.

Regarding claim 8, Zhang meets the limitation - The radio node as in claim 6, wherein bandwidths of the slow AGC, the fast AGC, and the radio control loop are sufficiently distinct in order to ensure stability [Since the Zhang system is operable as designed, stability is not an issue].

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Regarding claim 11, Zhang discloses A radio node for use in a radio communication system, comprising:

- a radio control loop for regulating a power level of a signal transmitted by each of plural remote access terminals to the radio node; (col. 5, lines 1-12 and Figure 3)

- a demodulator, (col. 13, lines 27-37)

- a means for short term adjusting of a signal power level of a signal received from each one of the remote access terminals before input to the demodulator; (col. 8, line 34 to col. 9, line 15 and col. 13, lines 27-37) and

- a means for long term adjusting, coupled to the means for short term adjusting, for balancing gain changes in a receiving chain of the radio node for all of the remote access terminals. (col. 9, line 15-38 and Figure 4)

Zhang is silent regarding a fast AGC and a slow AGC.

However, the examiner takes Official Notice that it is well known that automatic gain control is utilized in control loops used to implement transmission power control and that at the time of the applicant's invention it would have been obvious to modify Zhang's discussion of conventional AGC to include discussions of fast and slow AGC with regard his invention to more accurately describe the mechanisms of the invention.

Regarding claim 12, the examiner takes Official Notice that it is well known for a slow AGC to have a dynamic range that is smaller than the fast AGC and that slow AGC may have a response time  $>50$  ms and at the time of the applicant's invention that it would have been

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obvious to modify Zhang to include a slow AGC response time greater than 50 ms since for this type of automatic gain control there is a long settling time period.

Regarding claim 13, Zhang meets the limitation - The radio node as in claim 11, wherein bandwidths of the slow AGC, the fast AGC, and the radio control loop are sufficiently distinct in order to ensure stability [Since the Zhang system is operable as designed, stability is not an issue].

Regarding claim 17, Zhang discloses a radio node [Figure 3] for use in a radio communication system, comprising:

radio control loop means for regulating a signal power level transmitted from each of plural remote access radio terminals to the radio node, (col. 5, lines 1-12 and Figure 3) and

a receiver chain including;

demodulator means for demodulating signals received from each remote access terminal; (col. 13, lines 27-37)

a short term adjusting means for adjusting a signal power level of a signal received from each remote access terminal before input to the demodulator means; (col. 8, line 34 to col. 9, line 15 and col. 13, lines 27-37)

a long term means for balancing gain changes in the receiver chain based on the signals received from all the remote access terminals. (col. 9, line 15-38)

Zhang is silent regarding a fast AGC and a slow AGC.

However, the examiner takes Official Notice that it is well known that automatic gain control is utilized in control loops used to implement transmission power control and that at the time of the applicant's invention it would have been obvious to modify Zhang's discussion of conventional AGC to include discussions of fast and slow AGC with regard his invention to more accurately describe the mechanisms of the invention.

Regarding claim 18, the examiner takes Official Notice that it is well known for a slow AGC to have a dynamic range that is smaller than the fast AGC and that slow AGC may have a response time  $>50$  ms and at the time of the applicant's invention that it would have been obvious to modify Zhang to include a slow AGC response time greater than 50 ms since for this type of automatic gain control there is a long settling time period.

Regarding claim 19, Zhang meets the limitation - The radio node as in claim 17, wherein bandwidths of the slow AGC, the fast AGC, and the radio control loop are sufficiently distinct in order to ensure stability [Since the Zhang system is operable as designed, stability is not an issue].

#### ***Allowable Subject Matter***

Claims 9, 10, 14-16 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



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Regarding claim 9, 14, and 20, the slow AGC implementation in an indoor unit of the base station that is updated by the using peak amplitude information of the signal was neither found, suggested, nor made evident by the prior art.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication from the examiner should be addressed to Alan Gantt at telephone number (703) 305-0077. The examiner can normally be reached between 9:30 AM and 6 PM within the Eastern Time Zone. The group FAX number is (703) 872-9306.

Any inquiry of a general nature or relating to this application should be directed to the group receptionist at telephone number (703) 305-4700.

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*Alan T. Gantt*

Alan T. Gantt

February 5, 2005

*Nick Corsaro*  
**NICK CORSARO**  
**PRIMARY EXAMINER**